

Fig. 1, the terminals 30 and 33, Fig. 7, are connected with 61 and 62, whereupon the following connection is made: The current passes from battery E through the terminals 31 and 32 to the electromagnet *i*, through the terminals 21 20, inner coil of the induction-coils R, terminal 25, contact-springs 34 60, contacts 33 62 61 30, contact-spring 29, contacts 28 14, and electromagnet 10 back to the battery E. The electromagnet *i* is in this position of the switch uniformly magnetized by the battery E and demagnetizes thereby the steel wire *g* on the bow *e* rotating.

For telegraphic purposes the invention can also be used with advantage. It is in such case only necessary to receive the current impulses transmitted over the line in the electromagnet while it is in contact with the paramagnetic body. The paramagnetic body may be moved past the electromagnet, or vice versa.

Having described my invention, I claim—

1. The method of recording and reproducing speech or signals which consists in impressing upon an electric circuit containing an electromagnet, undulations of current corresponding to the sound-waves of speech or to the signals; simultaneously bringing successive portions of a magnetizable body under

the influence of said electromagnet and thereby establishing in said body successively-varying magnetic conditions; and finally subjecting an electromagnet connected in a circuit, successively to the various magnetic conditions established in said body, substantially as described.

2. The method of recording and reproducing speech, signals, &c., which consists in imparting magnetic conditions successively to a magnetizable body or surface, said conditions varying in accordance with the sound-waves produced by said speech or signals and then subjecting a reproducing apparatus to said magnetic conditions successively.

3. The method of storing up signals or messages represented by undulating or irregular currents, which consists in imparting to various portions of a magnetizable body, magnetic conditions corresponding to said undulating or irregular currents.

In testimony whereof I have hereunto signed my name in the presence of two witnesses.

VALDEMAR POULSEN.

Witnesses:

VALDEMAR CHRISTENSEN,
NIELS CHRISTIAN BÖTCHER.